

III. Remarks

The Examiner has allowed claims 1 and 6–8, objected to claims 10 and 14, and rejected claims 2–5, 9, 11–13 15 and 16. The claim rejections are on the basis of 35 U.S.C. § 102(b) and 35 U.S.C. § 112, second paragraph, and are addressed directly below.

A. Rejection of Claims 9 and 11–13 Under 35 U.S.C. § 102(b) As Being Anticipated by United States Patent No. 4,021,355 to Holtmayer et al.

The Examiner has rejected claims 9 and 11–13 under 35 U.S.C. § 102(b) as being anticipated by Holtmayer et al. for the following reasons:

[Holtmayer] et al. teaches compositions for fracturing well formations, such as oil and gas wells. Said composition comprises an aqueous liquid, a gelling agent and a crosslinking compound. Said gelling agents include hydrated polysaccharides having a molecular weight of greater than about 100,000 but less than about 300,000, preferably from about 200,000 to about 300,000 — see column 2, lines 35–40 and lines 50–51. Suitable polysaccharides include galactomannan gums, glucomannan gums and cellulose derivatives — see column 2, lines 40–61. These teachings anticipated claim 9. Said crosslinking compounds are taught to be any compound, which will provide the metal ions found in column 3, lines 10–13 in the oxidation state listed, wherein organo-titanium compounds can be found. This anticipates claim 11. In addition to the above defined components of the composition, the composition can also comprise a propping agents [*sic*] can be added to the hydrated gel prior to the addition of the crosslinking agent. This teaching anticipates claims 12–13. The invention of claims 9 and 11–13 are anticipated by the reference.

(Examiner's Action, page 2, paragraph 3.)

Applicants have canceled claim 9. Applicants have amended claims 11–13 to make claims 11–13 dependent upon claim 10. In the Action, at page 4, paragraph 11, the Examiner states that “[c]laims 10 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.” As claim 10 has been rewritten in independent form including all of the limitations of independent claim 9 upon which claim 10 was dependent, claim 10 should now be in condition for

allowance. As claims 11–13, being dependent upon claim 10, include all of the limitations of claim 10, claims 11–13 should be in condition for allowance.

In view of the cancellation of claim 9 and the amendment of claims 11–13, the rejection of claims 9 and 11–13 under 35 U.S.C. § 102(b) as being anticipated by Holtmayer et al. have become moot and should therefore be withdrawn.

**B. Rejection of Claims 9, 11–13 and 16 Under 35 U.S.C. § 102(b)
As Being Anticipated By United States Patent No. 4,505,826
to Horton**

The Examiner has rejected claims 9, 11–13 and 16 under 35 U.S.C. § 102(b) as being anticipated by Horton for the following reasons:

Horton teaches prepackaged crosslinked polymers capable upon hydration for use usage [sic] as a fracturing fluid. Said mixture includes a polysaccharide, a crosslinking agent and a pH-adjusting agent to facilitate the crosslinking reaction. Said mix is hydrated while being pumped and reaches maximum viscosity in the formation, such as an oil well. It is taught that the gelling composition is a solvatable polysaccharide having a molecular weight of at least about 100,000 and include[s] those polysaccharides found in column 3, lines 55 to column 4, line[] 5. Said cross linking agents contain polyvalent metal ions and is most preferably zirconium acetal acetate. This anticipates at least one crosslinking agent in claim 11. Horton teaches [that] propping agents, such as sand bauxite and other particulate materials can be added to the dry mixture. Said dry mix is added to an aqueous stream as it is pumped into the well, where rapid hydration is facilitated by the turbulence of the material in the bore well. Per example 13, Horton teaches [that] hydration takes place within less than 30 seconds. These teachings appear to anticipate claims 9, 11–13 and 16.

(Examiner's Action, page 3, paragraph 4.)

Applicants incorporate by reference Applicants' arguments as to the patentability of claims 11–13 that are set forth in response to the Examiner's rejection of those claims under 35 U.S.C. § 102(b), in view of Holtmayer et al.

Claim 16 has been amended to become dependent upon claim 14. As noted above, the Examiner has indicated that claim 14 would be allowable if rewritten in independent form. Claim 14 has been rewritten in independent form and includes the limitations of independent claim 13, upon which claim 14 was dependent. Accordingly,

claim 14 is in condition for allowance. As claim 16 is now dependent upon claim 14 and thereby includes all of the limitations of claim 14, claim 16 should also be in condition for allowance.

In view of the cancellation of claim 9 and the amendment of claims 11–13 and 16, the rejection of claims 9, 11–13 and 16 under 35 U.S.C. § 102(b) as being anticipated by Horton have become moot and should therefore be withdrawn.

C. Rejection of Claims 2–5 and 9–16 Under 35 U.S.C. § 112, Second Paragraph

The Examiner has rejected claims 2–5 and 9–16 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In support of this rejection, the Examiner asks, “[I]n claims 2–5 and 9–16 what are the metes and bounds of the recited molecular weights (*i.e.*, Mw, Mn, or Mp)?”

The molecular weights referenced in claims 2–5 and 9–16 are the molecular weights of the compounds which are represented by Mw. Definitions of Mw, Mp and Mn are set forth in **TABLE 2** of the Application at page 16.

- Mw:** The designation Mw is weight average molecular weight of a series of samples of irradiated guar.
- Mp:** The designation Mp is the molecular weight of the samples at certain peak conditions.
- Mn:** The designation Mn is the number average molecular weight, *i.e.*, the molecular weight of the sample having the molecular weight from which an equal number of samples have higher and lower molecular weights.

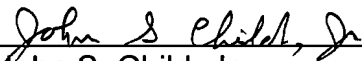
Accordingly, as Applicants have defined the term “molecular weight” as that term being used in claims 2–5 and 9–16, the rejection of claims 2–5 and 9–16 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to point out the definition of molecular weight is now untenable and should be withdrawn.

IV. CONCLUSION

It is believed that the above Amendment and Remarks constitute a complete response under 37 CFR § 1.111 and that all bases of rejection in the Examiner's Action have been adequately rebutted or overcome. A Notice of Allowance in the next Office Action is, therefore, respectfully requested. The Examiner is requested to telephone the undersigned attorney if any matter that can be expected to be resolved in a telephone interview is believed to impede the allowance of the pending claims still at issue in United States Patent Application Serial No. 10/606,0256 (claims 1-8, 10-12 and 14-16).

Respectfully submitted,

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